U.S. Patent Application No. 10/593,112

Attorney Docket No.: 126115-00101

Response to Office Action dated August 27, 2010

**Amendment to the Claims:** 

The listing of claims will replace all prior versions, and listings, of claims in the

application:

1. (Cancelled)

2. (Cancelled)

3. (currently amended) A junction for a conveyor belt according to claim [[1]] 15,

wherein the bush inserts are made in the second half-junctions so that the bush inserts drives

<u>drive</u> the edges of the hole of the two <u>cores</u> sections of the core that surround the bush inserts

perpendicularly in the general plane of these layers thereof and are therefore solidly attached

to the second half-junction in two perpendicular planes by a constituent material and the

sections of the core that surround them.

4. (currently amended) A junction for a conveyor belt according to claim 3,

wherein the bush inserts comprise a section forming a flat flange that is attached to the actual

bush section and arranged perpendicularly to the end of the bush that is the closest to the

outside surface of the bottom level of the matching second half-junction, only being separated

from this surface by a thin layer of a constituent material, these flanges extending in a plane

that is parallel to the general plane of the <u>second</u> half-junction and being solidly attached to

the constituent material that surrounds them.

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5. (**currently amended**) A junction for a conveyor belt according to claim 4,

wherein the cup inserts are made in the first half-junctions so that the cup rests closely, by its

sections that border the central hole, against the edges of the hole made in the two cores

sections of the core, with which it is attached by the surrounding constituent material.

6. (currently amended) A junction for a conveyor belt according to claim [[1]] 14,

wherein the front edge of the top level of the first half-junction has a succession of front edge

sections perpendicular to the longitudinal direction of the first half-junction, separated from

each other in the longitudinal direction and front edge sections that extend longitudinally,

each of these front edge sections perpendicular to the longitudinal direction being connected

to the closest front edge sections that are perpendicular to the longitudinal direction shifted

towards the rear by front edge sections that are parallel to the longitudinal direction, thus

forming a broken line, the shapes of the front edge of the bottom level of the first half-

junction, of the front edge of the top level of the second half-junction and of the front edge of

the bottom level of the second half-junction resulting, as defined above, from the shape of the

front edge of the top level of the first half-junction, the core being slit longitudinally over the

distances required to form shifted folds and the shifted folded sections corresponding to the

shifted front edge sections.

7. (**currently amended**) A <del>junction for a</del> conveyor belt according to claim 6,

wherein the front edge of the first half-junction is in the shape of a broken line arranged

overall obliquely across the first half-junction.

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8. (**currently amended**) A <del>junction for a</del> conveyor belt according to claim 6,

wherein the front edge of the first half-junction, in an outline sketch, is in the shape of a

broken line arranged in an overall V shape, the point pointing towards the front.

9. (currently amended) A junction for a conveyor belt according to claim 6,

wherein the front edge of the first half-junction alternately comprises first front edge sections

perpendicular to the longitudinal direction and second front edge sections perpendicular to

the longitudinal direction shifted towards the rear in relation to the first front edge sections.

10. (**currently amended**) A junction for a conveyor belt according to claim [[1]] 14,

wherein the front edge of the top level of the first half-junction is in the shape of a V with its

arms forming straight lines, the point of the V pointing towards the front, the shapes of the

front edge of the bottom level of the first half-junction, of the front edge of the top level of

the second half-junction and of the front edge of the bottom level of the second half-junction

resulting from the shape of the front edge of the top level of the first half-junction, and the

folds of the [[core]] cores being arranged obliquely in relation to the longitudinal direction,

following the arms of the V of the shape of the front edges towards the rear.

11. (**currently amended**) A junction for a conveyor belt according to claim [[1]] 14,

wherein the front edge of the top level of the first half-junction is substantially perpendicular

to the longitudinal direction, with the exception of one or more V-shaped indentations, the

point of the V pointing towards the rear, which can also be in the shape of a concave curve,

the core sections being indented also, following the shape towards the rear of the indentations

of the front edges of the top level of the first half-junction, the shapes of the front edges of the

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bottom level of the first half-junction and of the top level and of the bottom level of the

second half-junction resulting from the shape of the front edge of the top level of the first

half-junction, and the core sections of the bottom level of the second half-junction being

indented following the shape of the indentations of the front edge of this bottom level of the

second half-junction towards the rear.

12. (**currently amended**) A junction for a conveyor belt according to claim [[1]] <u>14</u>,

wherein the first and second half-junctions are formed of vulcanized rubber or plastic.

13. (currently amended) A junction for a conveyor belt according to claim [[1]] 14,

wherein the fasteners are one of a screw, rivet, or stud.

14. (**new**) A conveyor belt, comprising:

first and second ends; and

first and second half-junctions at said first and second ends, respectively, the first and

second half-junctions being shaped to interlink with each other to form a junction, each of the

first and second half-junctions having a generally flat shape defining a general plane of the

junction,

the first half-junction including:

an upper layer and a lower layer, each of the upper and lower layers being

integral with the first end of the conveyor belt,

a flexible core extending between the upper layer and the lower layer, the

flexible core being folded so as to provide overlapping layers that form a fold protruding

towards the second end of the conveyor belt parallel to the general plane of the junction, the

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upper layer and the flexible core being closer to the second end of the conveyor belt than the

lower layer, and

inserts extending through the upper layer and the overlapping layers of the

flexible core perpendicularly to the general plane of the junction, the inserts of the first half

junction being spaced from the lower layer, and

the second half-junction including:

a lower layer and an upper layer, each of the lower and upper layers being

integral with the second end of the conveyor belt,

a flexible core extending between the lower layer and the upper layer, the

flexible core being folded so as to provide overlapping layers that form a fold protruding

towards the first end of the conveyor belt parallel to the general plane of the junction, the

lower layer and the flexible core being closer to the first end than the upper layer, and

inserts extending through the lower layer and the overlapping layers of the

flexible core perpendicularly to the general plane of the junction, the inserts of the second

half-junction being spaced from the upper layer,

wherein the flexible core of one of the first and second half-junctions overlaps the

flexible core of the other one of the first and second half-junctions at the junction, and the

upper layer of each one of the first and second half-junctions is arranged end-to-end with the

upper layer of the other one of the first and second half junctions at the junction.

15. (new) A conveyor belt according to claim 14, wherein

the inserts of the first and second half-junctions include cup inserts and bush inserts

allowing the passage of assembly rods.

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16. (new) A conveyor belt according to claim 15 wherein

each of the assembly rods extends through one of the inserts of the first half-junction and through one of the inserts of the second half-junction without protruding from the junction.

17. (new) A conveyor belt according to claim 14, wherein

the junction and each half-junction have a maximum thickness that is equal to or slightly less than that of the ends of the conveyor belt.